Title: Patient Monitor- Propaq CS	file = mon-Propaq-CS.doc
By Welch Allyn	**Disclaimer: This procedure provided "as is" and with possible faults. User must verify before use. Neither provider nor website assumes any responsibility for its use.**
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1. General
   Applies to Propaq® CS Vital Signs Monitor
   Ex: Models 242, 244. Condensed for *in situ* checkup.

2. Reference Documents
   User Guide P/N 810-2689-01 Ver A (online)
   Service Line 800-289-2501 Option 3
   Service Manual:
   http://www.welchallyn.com/documents/Patient%20Monitoring/Continuous%20Monitoring/Propaq%20CS/2008_08_12_Propaq_CS_Service_Manual.pdf

3. Tools / Fixtures / Labels
   "Smart Arm" for Checking Blood Pressure Cuffs
   Pulse Ox Simulator Nellcor SRC-max
   EKG Simulator and set of EKG leads - Neurodyne
   Green Write-on Label Veriad P/N 171332
   Clear Shield Label Veriad P/N US408

4. Basic PM Procedure Note: May be necessary to warn central desk of false alarms.

   4.1. Physical Inspection.
   Make sure the two small rear circular flanges have not loosened up by temporarily removing unit from mounting stand.
   Check entry of main power cord. When attached, the nearby green "power available" LED should not flicker if this cord is moved slightly.
   Check the external power supply for firm attachment, checking for loose or broken tie-wraps.
   Check the patient leads (EKG, pulse ox, and pressure hose for continuity and integrity).

   Note: Hitting any bottom button (actually touch screen icon) will clear alarms.
   Central station selection is normally MEDICINE/TRAUMA

   4.2. Turn on unit; button switch is on the right side. Unit will normally go thru a set of turn-on self-diagnostics. Optional: Occasionally necessary to check limit levels of alarms by following the icons on the touch-screen (hit Setup/Alarms/Limits). When connected to a network, the upper left of the screen will alternate text "Serial" / "On-network".

   Hit "Network-on/network off". After a short disconnect interval, unit normally will reconnect.

4.3. ECG Check. Simulator off. If the unit is missing its EKG leads, connect a set between the main patient cord and EKG simulator. Set the simulator to 80 beats/min. Simulator On. Note corresponding value on monitor screen.

4.4. ECG Alarm. Set the simulator for 160 beats/min. Within a few seconds, the monitor should alarm.

4.5. Pulse Oximeter. At the end of this cable, temporarily replace the patient pulse ox with the pulse ox simulator. The monitor should automatically display a corresponding heart rate and also the pulse ox value (typically 112 heartrate, 81% oxygen.)

4.6. Blood Pressure. Wrap the monitors cuff to the "Smart Arm" simulator; be sure cuff hose is on the outside. Set sim to BP mode. Use a tee to connect the cuff line to the output of sim. Turn on simulator; if necessary set to 120 over 80. To take a blood pressure test, put the monitor in NIBP mode and press start. Typical results are 115 over 76 for the above simulator inputs.

4.7. Temperature. The same patient simulator used above has a two wire cord/connector for temperature and normally set to 37C reference. The monitor will automatically display this upon connection. Normal display is 37+/0.1 with +/-0.2 max allowed.

4.8. Invasive Blood Pressure. The same patient simulator used above has a cord/connector. It automatically senses when a pressure probe cable connector is present.

"Zeroing" :

Using the LCD presented menu on the simulator, select MAIN, B-Pressure, atm/ atm with the appropriate executions. On the monitor, press the soft icon for zero and wait a few moments for completion.

"Full Scale"

Using main simulator menu, set the pressure output to arterial @ 80mmHG if necessary. The monitor should very soon reflect this value along with the cardiac pressure waveform trace.

4.9. Re-label: Replace old PM label with a forward date of 6 months and initial. Protect by applying clear cover label. Don't forget to recover your test leads if necessary

4.10. Cross unit off the check list.

4.11. Ancillary Room Equipment Check – use the pressure readout on the "Smart Arm" to check the value of aneroid manometer that is normally connected to a blood pressure cuff.

5. Extended PM Procedure

NA – Repair when required.